



ZERO BEAT



AMSAT

Hampden County Radio Association

Springfield, MA

November 1985

ARRL Affiliated, 37th Year

HCRA Annual Auction

Friday November 1, 1985 7:30 PM

Granger School
Feeding Hills, MA

The HCRA wants YOU!

To be at its Annual Auction Friday
November 1 at the Granger School
in Feeding Hills, MA.

Please, no smoking
in the school! Thank you!



NO SMOKING

US Callbook now includes Canada and
Mexico!!!



The HCRA is again offering Callbooks!

We will have a limited number of new 1985 US and DX
Callbooks. The cost is \$18.00 each, either edition. You
can order yours today by contacting Ron Beauchemin,
WBIETS, 75 Robinson Rd., West Springfield, MA 01089

**SPACE SHUTTLE
DPOS
LISTEN TO
W1NY ON 145.13,
KAIJRM/R 147.105
(FOR UPDATES, INFO)**

Dues are \$9.00 per season, September thru June. Please mail to: N1AEH,
Greg Stoddard, 1500 Mapleton Avenue, Suffield, CT 06078. Thank you!

SYNCR-TIPS

By Chet Kruczek, W1HGJ

John, WALLAO, and I were shooting the breeze one night over the 147.105 repeater. Naturally, the subject was ATV! We talked about having to go up to the repeater site to reload the Timex ATV program every so often, when we'd lose power. This is due mostly to lighting storms. We speculated on being able to load the computer from the home QTH, and how it would make life a lot easier.

One night, on schedule, John set up his ATV transmitter of 439.25 Mhz, plugged the tape recorder into the sub-carrier sound input jack, inserted a taped program and started sending. I listened for his sound on my set-up and asked him to turn down his video gain control. This reduced the sync buzz and increased the sub-carrier output power. After careful tuning, I heard the familiar sound of the computer program.

Knowing that the Timex requires clean tone bursts, from 4 to 6 volts in amplitude, I connected my Heathkit audio amp between the down-converted TV audio output and the earphone jack of the Timex. After some playing around with the gain control I was able to hear a good signal and observed what looked like a clean bar pattern. Eureka! The next run gave me the long-awaited 0/0, load OK symbol. The program had loaded successfully, much to my amazement. I then listed the program and ran it. It looked great! John had sent a little truck, bearing the letters HCRA, creeping across the screen, from 22 miles away. We were both elated by the results!

This now opens a new door for sending programs, including graphics, by using the ATV sound sub-carrier frequency. We hope to have a Timex 1000 built into the repeater and are thinking of it as a cheap, but capable, common ground for possible bulletin-board input.

**VEC EXAM IN
WILBRAHAM DEC. 14**

Annual Auction

FRIDAY NOVEMBER 1ST, 1985

GRANGER SCHOOL

FEEDING HILLS, MASS

(On a Diagonal from the F.H. Cong Ch.)

Doors open at 6:30pm,

Auction starts promptly at 7:30!

RULES:

-All items must be clearly labeled with your name or call.

-Club takes 10% of all sales.

-Minimum bids may be marked on items. Seller may bid to protect his own item. No charge if seller buys his own item. (HOWEVER, we will only try to sell each item ONCE! No one will be allowed to buy and then put the item back in for re-sale.)

-Items donated to the club should be clearly labeled "DONATION". Tax receipts will be available.

-Seller guarantees the item, not the club.

AUCTIONEER HAS THE FINAL SAY ON ALL SALES. DISPUTED ITEMS WILL BE PUT UP FOR BID ALL OVER AGAIN.

It's OK to put interesting information on an item to help the auctioneer get a better price. For example, if the rotor you're selling is new, write it on the item.

PLEASE- This auction is to help pay the high costs of your radio club. Bring a friend, bring something to sell, help in other big and small ways.

WE NEED YOUR SUPPORT!

"Quick As A Wink" Printing & Sales Co.



Printing • Copying • Addressing
• Specializing in Newsletters •
Also Business Cards • Tickets • NCR Sets

What Else Have You?

- Free Parking at Our Door -

FRANK H. KOZAK

ROBBIN J. KOZAK

573 Union Street West Springfield, Ma. 01089

TELEPHONE (413) 736-8184

MARCONI, PRIMO WIRELESS AMATEUR

As we prepare to commemorate the anniversary of the first two-way CW QSO between the United States at Cape Cod, and Poldu, England by Guglielmo (William) Marconi, let's look into a few aspects of this man's life and pioneering developments that definitely label him as Radio Amateur #1.

An amateur Billy was indeed, since he received no formal academic or technical training. Like most present-day young hams one evening he quietly called his poetic Irish mother Annie Jameson to witness his first flush of success in their attic at Pontecchio, Italy. His dictatorial Italian father Giuseppe was not too fond of Billy's tinkering with all those jars and instruments up in the third floor, where in former times silk-worms did their stuff. Up there that night in 1894 as his mother watched, he tapped a telegraph key delicately with one finger, and lo-and-behold at the other end of the room a bell was set ringing, clear, but not much louder than the crickets in the background. Look Ma----no wires!

From then on at age 20 he devoted his entire life to the many technical details necessary for practical two-way communication: people-to-people without wires. His friend and neighbor Professor Righi of Bologna provided invaluable scientific guidance. Meanwhile young Billy read all about Maxwell's mathematical prediction of electro-magnetic waves in space (1865), and of Heinrich Hertz's production and detection of radio waves in his lab at Karlsruhe Polytechnic (1887). Billy Marconi's favorites however, were the more practical contemporaries like Benjamin Franklin of Boston/Philadelphia fame, and Michael Faraday of London, the metallurgical, electromagnetic, and induction genius, who like Billy was self educated and endowed with exceptional mechanical skill and experimental vision. One thing about Billy though, he knew that the practical development of wireless telegraphy would be a great humanitarian achievement, especially for people at sea and in remote lighthouse locations, and from his father he inherited an eye for a buck in business.

Like so many of us nowadays, Marconi had to

resort to his junk-box for progress. He resurrected an old tank that had been used to store lamp oil and broke it up into two slabs of sheet iron. Using these in place of the big oscillator spheres, and with one on the ground and the other a considerable height above it the signal strength increased (a tankful) up to a mile or so, even over the side of a hill from Pontecchio. He was delighted upon hearing the shot his brother fired at hearing the signal in the "shadow", deep in the valley. To Billy this meant that unlike light waves, radio waves could and did travel up and down and around curves, as well as line-of-sight. The other junk-box occasion was in the construction of a magnetic tuning device for separating the rapidly multiplying number of wireless stations. He used some very thin wire used for tying up flowers to make his own "magnetic detector" patented in 1903 and later described as a "jewel of workmanship".

de WIKK 1978



KAIJUM/R

BETTER THAN EVER! KAIJUM/R 147.105

October has been a big month for the 147.105 club repeater in Wilbraham! Anonymously donated funds have purchased an ACC RC-85 controller, a new duplexer from Sinclair, and a Station Master antenna. At this time, the RC-85 and duplexer have been installed. The performance has made an outstanding leap forward! When the new feed line and antenna goes in, another improvement should be evident. (At least 3 db!) The repeater now ID's with voice and cw, and offers many features for the members to use. (More on those soon.) It has been a while in coming, but the patience of the members is appreciated!

The person who donated the finances and effort to make this all possible wishes to remain anonymous, but their gifts are greatly appreciated. More things are planned for the machine in the near future, but get on today and try the 147.105 (+600) machine!

MORE TO COME!

The new RC-85 controller on the 147.105 repeater offers the membership several neat features. As the money becomes available, several goals are in mind:

-Install a phone line atop Wilbraham Mountain. Besides autopatching calls, this would allow us to run the Morse code training nets, and Westlink. (see below)

-Run the Morse Code Training net tapes. These are being prepared and will basically consist of a QST announcement followed by a 5 minute QSO, similar to what you take for the code exams now. Then the voice will be back on, and ask 10 fill-in-the-blank questions. The goal is to help people upgrade their licenses. The phone line will be needed, because we'd want to be able to change the tape often. Not too many are willing to drive to the repeater site every day to switch tapes! The phone line would let you call the number and have the answering machine play the tape for you anytime you cared to listen.

-Run a "Hoss-Trader's Net" again. This can be done today, if enough hams would volunteer to take turns as net control station. How does Thursday night sound, at say 7:30 pm? Let us know, we need your help!

-Westlink is carried every weeknight on the KAIKPH/R machine. This is a tremendous service if you have never listened in! The HCRA should be carrying this at least once per week on the club two meter machine. A link to the 449.175 machine is needed, or a phone line so a call could be placed to the master tape player.

-Linking the 147.105 repeater and the Mt. Greylock six meter machine is going to be done. If it is, then the Morse Code Training Net could be heard by even more people by putting it out on both repeaters simultaneously! And you the member would be able to work six meters using two meters in the car or home.

147.105 +600

What's needed to get all of these goals accomplished? Your support both physically and financially! A payment of only an additional \$10.00 makes you a repeater club member. All that money goes towards the system being built. Remember, the goal is not to own repeaters per se, but to build interconnected machines that will be a complete communications system! Do you have any old crystal controlled rigs gathering dust? Consider donating them! That's the kind of thing we can use to build the links. Volunteer to be a net control station one night per month. It's not hard, it's more a question of doing it. Let us hear from you!

FOR SALE: Rohn 25G tower: 4- 10 ft sections, 1 top section, 1 wall bracket, 1 baseplate, 1 rotor plate, 1 side bracket, CDE Ham II rotor, TA33 jr beam, coax and cables, Jim Smith W1RBU 413-527-2503

FOR SALE: At the December meeting of the HCRA. 1986 ARRL Handbooks. Limited number, first come, first served.

VOLUNTEER EXAMINER NEWS

Here's the latest news and information about the HCRA's Volunteer Examiner Program.

The only test date scheduled right now:

Saturday, December 14th

9:00 a.m., in the Wilbraham High School, on Main Street. Walk-ins are ok, but arrive early so the paperwork can be completed. All classes of license will be tested. Bring your original license and a copy, and any certificates you've received from other VE sessions.

The October 19th session went very well, congratulations to all who upgraded. A list will be in the December issue.

The club wants every extra class license to help with the VE Program. Just send a note to Yorke Phillips, KIBXE, 235 Ames Road, Hamden, MA 01036 to get an application. Forward it to the ARRL, take an open book exam and you will get accredited. To find out more, contact Yorke at (413-566-3010), or help out one of the exam sessions. (See date above.)

The question of still using a 30 day waiting period was raised at the October 19th exam session. That rule does not expire until November 8th, so is still being enforced. Keep in mind that the VEC may install a waiting period. The HCRA is part of the ARRL's effort, so whatever they decide is what we will be doing! We will keep you up-to-date via this column.

Code training tapes are being prepared. (See article on the K1JJM/R) The intention is to help you upgrade by passing the code test. When you do hear them over the repeater, make sure you tell us what you think. It's hard to justify the effort if it seems that no one is listening!

More and more walk-ins are coming to each exam session. Keep in mind that only the people who have signed up ahead are guaranteed an exam! Walk-ins are taken only on a space available basis. Don't be disappointed, sign up ahead of time!



K1KREJ has had his contact with the space shuttle, W00RE confirmed, Congrats, Jack ...W1KK, W1H1H, and W1LLES did yeoman duty during the Mexican disaster ... K1JJM/R is sporting new goodies, give it a listen ... ARRL DX CONTEST is being dumped from the club's list of activities, only two logs sent in during 1985. Many thanks for your support, W1DGJ, AND W1MM ... K1KPH has his new tower up ... Inexpensive transceivers for 902 mhz may be available soon ... K1BE would like to borrow a 220 or 902 mhz xcvr for use during the January VHF sweepstakes. Can you help? ... Digipeaters use during an emergency can not be underestimated. Watch for the high traffic volume that can be passed on packet. ...

CLUB AUCTION NOV. 1 GRANGER SCHOOL FEEDING HILLS, MA

RG-8A Coaxial Cable Sale

A limited amount of this high-quality foam-core RG-8A coax is now on sale. Some local stores have been selling poor-grade cable for 37¢ per foot! Our coax is brand new, with 96% shielding. Here's your chance to save some money and get better performance.

Price: 500 foot roll, 18¢ per foot

100 foot lengths, 22¢ per foot

We'll bring your cable to the next HCRA meeting. You can order over the phone, but there is only a limited amount, and prepaid orders will be taken care of first. odd lengths, 27¢ per foot

Mail to: Jeffrey J. Duquette, K1BE
P O Box 346
Southwick, MA 01077
Phone Day 413-730-3253

Make checks payable
to
"Jeffrey J. Duquette"

Evenings (Before 9 pm!) 413-569-6739

Loss in db per 100 feet

TYPE	IMPEDANCE	3.5 Mhz	7 Mhz	14 Mhz	21	28	50	144 Mhz
RG 8/U	52 ohms	0.3	0.45	0.66	0.83	0.98	1.35	2.5
RG 8 A/U	"	0.25	0.36	0.53	0.67	0.80	1.1	2.0

Velocity factor of the RG 8 A/U is .81

Thanks to the efforts of our PIO and PIA's, ham radio has been in the news quite a lot lately! Joe, WALLE, and Art, WKK, were both featured in the news. Here are two other articles that may be of interest to the members. A two page article was also published in the "Southwoods" magazine. That's too long to re-print here.

Send copies of any articles you see to the club.

The Agawam Advertiser News

Shawn McCormick Called One Big "Ham"

Thirteen year-old Shawn McCormick of Forge Street passed the highest license possible in amateur radio. The government tests require four written exams of over 160 questions and receiving morse code at 20 words per minute!

Shawn said, "The questions cover radio regulations and theory, and are very technical on the last one." A student in the eighth grade at Agawam Junior High School, Shawn has been a radio amateur for only one year. He talks all over the world via radio waves, including Russia and Japan. Shawn has also helped with experiments to bounce signals off the moon and back to earth. His call sign is KA1MCA, but he'll now receive a special one to note that he has the highest class of license, called "Amateur Extra Class."

Amateur radio is an international hobby that is regulated in the United States by the Federal Communications Commission. Hams have recently been in the news spotlight for helping to communicate with Mexico City and helping as Hurricane Gloria approached.

Shawn was working with Agawam Civil Defense to provide communications during Gloria. "No one

knows or cares how old you are on a radio," said local ham operator John Balboni, "and Shawn sends morse code like an old pro!"

Shawn also makes use of a computer to talk to other radio hams. This newest way to converse is called "packet radio," and is adding enthusiasts very rapidly.

Shawn is a member of the local radio club, the Hampden County Radio Association, which meets at the Feeding Hills Congregational Church every month. Classes are sponsored by the club Tuesday nights at the Agawam High School to help others become radio amateurs or to upgrade.

Shawn is also a member of the national group of radio amateurs, the American Radio Relay League, and recently received a special award for talking to the most stations around the world during a contest.

If you'd like more information about becoming a radio ham, contact the Hampden County Radio Association, P.O. Box 482, West Springfield, Massachusetts, or call Art Zavarella at 786-9115. The American Radio Relay League's address is 225 Main Street, Newington, Connecticut, 06111.

'Space shuttle calling western Massachusetts'

The Hampden County Radio Association of Springfield, Massachusetts received an STA from the FCC to retransmit the space shuttle *Challenger's* audio over Amateur Radio. Using the direct frequency of 146.595 MHz, the club station, W1NY, was on for the entire mission. Hams and SWLs listened throughout the Greater Springfield area. Joe Wolos, WA1OCK, used a feed from the local cable company with permission, and fed it into a Yaesu Memorizer, putting 10 watts into a Mirage 108 amp, and then into a cavity, which fed the Omni antenna with 40 watts. The signal was heard into New Hampshire, Vermont, Connecticut and eastern Massachusetts.

The orbital data from NASA was fed into John Balboni's Commodore 64, and AC1T's printouts for each pass over Springfield were relayed over Amateur Radio. "The response was unbelievable!" said John. "Listeners were calling every day from parts unknown." Bob McCormick, KA1KPH, club president, stated, "We expected some interest from the ham

community, but not the deluge of hams and general public!"

Using the information provided by the club station, Jack and Jeannette Platanitis were able to make a contact with W0ORE aboard the shuttle! "We were talking to a man in space while sitting in our basement. That's exciting!" Platanitis said. A 9-year-old boy at the Mount Herman School, Henry Miller, is a young astronaut, and he'd asked the Platanitis to help. Pete Campana, KA1LHD, Larry Krainson, WB1DBY, and Henry's dad were also there. "When he acknowledged hearing KA1KRJ, we all whooped for joy," Pete stated.

Other amateurs listened to the passes, and the signals were 59+ in the area. "I heard so many call signs, my hand was stiff writing them down," said Jeff Duquette, K1BE. QST announcements of the passes and frequencies on all the area repeaters kept the interest high. When everyone heard that KA1KRJ had worked the *Challenger*, the excitement was at a fever pitch.

Local news organizations were ringing

the phone off the hook. Two television stations did a special newscast and during one, there was W0ORE loud and clear from space. Couldn't have timed it better! The WSFB news team filmed at W1AW during the SSTV passes and heard the audio being retransmitted by W1NY. So they came up to Springfield and interviewed us. The news segments peaked up interest even more.

The Hampden County Radio Association is a special service club and is very active. They sponsor 2-meter and 440 voice repeaters, a packet digipeater and an ATV repeater. Never look back, always onward and upward could be their motto. For the next space shuttle carrying Amateur Radio operators, they hope to also retransmit the video over the club's ATV machine. The club's mailing address is: Hampden County Radio Association, Inc. P.O. Box 482, West Springfield, MA 01090. □

Pass it on . . . WORLD RADIO

Hampden County Radio Association

Membership Application

Call: License Class: ☐

Name:

Address:

City:

State:

Zip Code: -

Please CIRCLE one choice for each question:

ARRL Membership?	NO	YES	LIFE
License Class?	Novice	Tech	General
	Advanced	Extra	Studying

Dues enclosed: \$ _____

Donation: \$ _____

Your much appreciated donation is tax deductible!

DUES STRUCTURE:

Regular membership \$9.00

Repeater membership \$19.00

FAMILY memberships - no increase from above, just sign up all the names, at no additional cost!

Return to:

Hampden County Radio Association
P.O. Box 482
West Springfield, MA 01090

Repeater memberships are regular membership (\$9.00) plus an additional \$10.00. i.e. \$9.00 + \$10.00 = \$19.00
NOT \$28.00!

CALENDAR OF EVENTS

1985 - 1986 HCRA Meeting Schedule

Friday	01-Nov-85	Annual Auction
Friday	06-Dec-85	DX
Friday	03-Jan-86	VHF & Repeaters
Friday	07-Feb-86	Computers in TV
Friday	07-Mar-86	HF propagation
Friday	04-Apr-86	Special speaker
<u>Sunday</u>	04-May-86	Annual Flea Market
Friday	06-Jun-86	Annual June Banquet

September 17-December 10th Licensing classes
at Agawam High School, Tuesdays, 7-9:30 pm

October 30th Space lab mission D1 lifts off,
look for DPØSL from Nov. 2-7th. Club Station
W1NY will be on 145.13 mhz, and updated info
will be there, and also on the K1JJM/R 147.105
+600 and the K1KPH/R 449.175 machine.

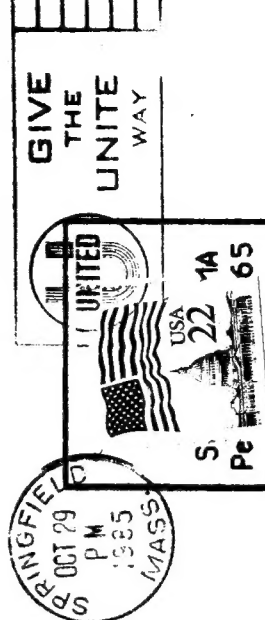
See you at the club auction November 1st!

Nobarc auction, October 27th, Pittsfield, MA

WESTLINK report, every weeknight at 8:00 pm
on the K1KPH/R machine, for up-to-the-minute
ham radio news! Soon to be on two meters.

ATV beacon is running on 426.25 mhz. Would you
be interested in a club building project for a
converter to receive ATV on a regular TV?

Our packet digipeater has been going great!
May be packet from space next March from
"ASTRO-1" space shuttle mission!!!!



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HAMPDEN COUNTY RADIO ASSOCIATION
P O BOX 482
WEST SPRINGFIELD, MA 01090

ACIT EY 10/85